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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,819	08/25/2003	Satoru Sugishita	241901US2	1814

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EXAMINER	
SINGH, SATWANT K	
ART UNIT	**PAPER NUMBER**
2625	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/646,819	SUGISHITA ET AL.	
	Examiner	Art Unit	
	Satwant K. Singh	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/25/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1. This office action is in response to the amendment filed on 25 September 2007.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 22, and 29 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-14 and 19-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuta (US 6,226,095) in view of Ogura (US 2003/0112461).

5. Regarding Claim 1, Fukuta teaches an apparatus for forming an image (image processing apparatus 110), in which hardware resources for use in the forming of images are provided, and one or more processes run based on programs in respect of the forming of images (color copying machines 120, 121), said apparatus comprising: an off-line unit configured to put said one or more processes in an off-line state in which restriction is placed on the running of said one or more processes (one color copying machine cannot perform actual printing because of an engine error); a memory area releasing unit configured to release one or more memory areas used by said one or more processes that are

put in the off-line state (entire memory is allocated to the PDL developing task corresponding to the other color copying machine capable of printing); and a data laying-out unit configured to lay out data in said one or more memory areas released by said memory area releasing unit (PDL developing task) (col. 9, lines 39-49).

Fukuta fails to teach an off-line unit configured to put one or more processes in an off-line state, in response to a notice indicating updating of one of the programs.

Ogura teaches an off-line unit configured to put one or more processes in an off-line state (standby state), in response to a notice indicating updating of one of the programs (Fig. 6, (S11-S14) (prohibit operations and indicate that updating is being performed) (page 3, paragraph [0042]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Fukuta with the teaching of Ogura to take the copier off-line/standby to prohibit the operation of the copier while the control program is being updated.

6. Regarding Claim 2, Fukuta teaches an apparatus, wherein said data laying-out unit is configured to prompt said off-line unit to put said one or more processes in the off-line state as preparation for laying out the data in said one or more memory areas (Fig. 8, S802, image processing apparatus notified of the error) (col. 11, lines 12-26).

7. Regarding Claim 3, Fukuta teaches an apparatus, wherein said data laying-out unit is configured to prompt said memory area releasing unit to release

said one or more memory areas used by said one or more processes that are put in the off-line state, after said off-line unit puts said one or more processes in the off-line state (Fig. 9, S904, change memory allocation) (col. 13, 12-21).

8. Regarding Claim 4, Fukuta teaches an apparatus, wherein said off-line unit configured to send an off-line-shift request to said one or more processes for putting said one or more processes to the off-line state (Fig. 9, S908, develop PDL data for copying machine having error) (col. 13, lines 12-21).

9. Regarding Claim 5, teaches discloses an apparatus, wherein said off-line unit notifies said data laying-out unit whether said one or more processes are in the off-line state, upon receiving a response from said one or more processes responding to the off-line-shift request (Fig, 8, S802 image processing apparatus notified of the error) (col. 11, lines 12-26).

10. Regarding Claim 6, teaches discloses an apparatus, wherein said off-line unit notifies said data laying-out unit that said one or more processes are in the off-line state, after all said one or more processes having received the off-line-shift request shift to the off-line state (Fig. 8, S808, busy state displayed) (col., 11, lines 27-33).

11. Regarding Claim 7, Fukuta teaches an apparatus, wherein said off-line unit notifies said data laying-out unit that said one or more processes did not shift to the off-line state, after a notice indicating inability to shift to the off-line state is received from said one or more processes having received the off-line-shift request (Fig. 8, S805, local copy processing is executed) (col. 11, lines 12-26).

12. Regarding Claim 8, Fukuta teaches an apparatus, wherein said off-line unit notifies said data laying-out unit that said one or more processes did not shift to the off-line state, after waiting for a response from all of said processes having received the off-line-shift request, even when a notice indicating inability to shift to the off-line state is received from one or more of said processes having received the off-line-shift request (Fig. 8, S805, local copy processing is executed) (col. 11, lines 12-26).

13. Regarding Claim 9, Fukuta teaches an apparatus, wherein said off-line unit notifies said data laying-out unit that said one or more processes did not shift to the off-line state, after a notice indicating inability to shift to the off-line state is received from one of said one or more processes having received the off-line-shift request, without waiting for a response from others of said one or more processes having received the off-line-shift request (Fig. 8, S805, local copy processing is executed) (col. 11, lines 12-26).

14. Regarding Claim 10, Fukuta teaches an apparatus, wherein said off-line unit measures a time lapse from the sending of the off-line-shift request to said one or more processes, and notifies said data laying-out unit that said one or more processes are in the off-line state after a predetermined length of the time lapse even if no response to the off-line-shift request is received from said one or more processes (Fig. 8, S805, local copy processing is executed) (col. 11, lines 12-26).

15. Regarding Claim 11, Fukuta teaches an apparatus, wherein said one or more processes are allowed to run without said restriction after said off-line unit

cancels the off-line state (Fig. 9, S910, engine error cancelled) (col. 13, lines 12-25).

16. Regarding Claim 12, Fukuta teaches an apparatus, wherein said restriction involves preventing an action by said one or more processes responding to a request from another process (Fig. 6, S602, receive only PDL data for copying machine having no error) (col. 10, lines 10-16).

17. Regarding Claim 13, Fukuta teaches an apparatus, wherein said one or more processes having shifted to the off-line state registers the request from another process (Fig. 9, S908, develop PDL data for copying machine having error) (col. 13, lines 12-25).

18. Regarding Claim 14, Fukuta teaches an apparatus, further comprising a process terminating unit configured to terminate said one or more processes having shifted to the off-line state (Fig. 14, S1409, 1408, save developed data and release memory) (col. 16, lines 11-21).

19. Regarding Claim 19, Fukuta teaches an apparatus, wherein said memory area releasing unit releases memory areas that are no longer used after said process terminating unit terminates said one or more processes (Fig. 14, S1409, 1408, save developed data and release memory) (col. 16, lines 11-21).

20. Regarding Claim 20, Fukuta teaches an apparatus, wherein said memory area releasing unit releases the memory areas according to size of said data that is to be laid out (Fig. 18, S1809, 1810, S1808) (data compressed and saved in HDD, frame memory is released) (col. 18, lines 66-67, col. 19, lines 1-6).

21. Regarding Claim 21, Fukuta teaches an apparatus, wherein said memory area releasing unit is configured to notify said data laying-out unit of completion of releasing of the one or more memory areas after releasing the one or more memory areas (processing prepared for reception of the next PDL data) (col. 18, lines 62-65).

22. Regarding Claim 22, Fukuta fails to teach an apparatus, wherein the data laid out by said data laying-out unit is an updating program for updating at least one of the programs, and said data laying-out unit obtains the updating program through data communication.

Ogura teaches an apparatus, wherein the data laid out by said data laying-out unit is an updating program for updating at least one of the programs, and said data laying-out unit obtains the updating program through data communication (digital copying machine, server and the PC are connected together through a network) (page 2, paragraph [0020]) (Fig. 6, S16-S19) (CPU downloads updating data from the server) (page 3, paragraphs [0043]-[0045]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Fukuta with the teaching of Ogura to use network communication to download data from the server on the Internet.

23. Regarding Claim 23, Fukuta fails to teach an apparatus, further comprising a program updating unit which updates at least one of the programs in response to a program updating start request sent from said data laying-out unit.

Ogura teaches an apparatus, further comprising a program updating unit which updates at least one of the programs in response to a program updating start request sent from said data laying-out unit (Fig. 5, S16-S18) (updating required, CPU downloads updating data) (page 3, paragraph [0044]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Fukuta with the teaching of Ogura to use network communication to download data from the server on the Internet.

24. Regarding Claim 24, Fukuta teaches an apparatus, further comprising an input unit which is used to operate said apparatus, and said program updating unit invalidates said input unit when updating at least one of the programs (Fig. 8, S808, inhibit key inputs)(col. 11, lines 27-33).

25. Regarding Claim 25, Fukuta fails to teach an apparatus, wherein said program updating unit reboots said apparatus after completing the updating of at least one of the programs.

Ogura teaches an apparatus, wherein said program updating unit reboots said apparatus after completing the updating of at least one of the programs (Fig. 6, S19) (execute rewriting processing) (page 3, paragraph [0045]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Fukuta with the teaching of Ogura to reboot the copier to update the control program stored in the ROM by rewriting the control program with the updating data stored in memory.

26. Regarding Claim 26, Fukuta fails to teach an apparatus, wherein said program updating unit notifies a device of status of the program updating, said device communicating with said apparatus.

Ogura teaches an apparatus, wherein said program updating unit notifies a device of status of the program updating, said device communicating with said apparatus (Fig. 6, S21) (send mail to PC) (page 3, paragraph [0046]-page 4, paragraph [[0050]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Fukuta with the teaching of Ogura to store notify the PC indicating the updating operation has either successfully or unsuccessfully terminated.

27. Regarding Claim 27, Fukuta teaches an apparatus, wherein said program updating unit notifies of the status of the program updating by use of a process that has shifted to the off-line state (Fig. 8, S802, notify image processing apparatus of error) (col. 11, lines 12-26).

28. Regarding Claim 28, Fukuta teaches an apparatus, wherein said one or more memory areas are outside control of an operating system that controls the running of said one or more programs and the hardware resources (developed data stored in the memory and/or the HDD) (col. 13, lines 35-57).

29. Regarding Claim 29, Fukuta teaches a method of acquiring one or more memory areas in an image forming apparatus (Fig. 3, PDL buffer 3013), in which hardware resources for use in the forming of images are provided, and one or more processes run based on programs in respect of the forming of images

(color copying machines 120, 121), the running of the programs and the hardware resources being controlled by an operating system (Fig. 3, CPU 3011), said method comprising: an off-line step of putting said one or more processes in a off-line state in which restriction is placed on the running of said one or more processes (one color copying machine cannot perform actual printing because of an engine error); a memory area releasing step of releasing one or more memory areas used by said one or more processes that are put in the off-line state (entire memory is allocated to the PDL developing task corresponding to the other color copying machine capable of printing); and a data laying-out step of laying out data in said one or more memory areas released by said memory area releasing step (PDL developing task) (col. 9, lines 39-49).

Fukuta fails to teach an off-line step of putting one or more processes in an off-line state, in response to a notice indicating updating of one of the programs.

Ogura teaches an off-line step of putting one or more processes in an off-line state (standby state), in response to a notice indicating updating of one of the programs (Fig. 6, (S11-14) (prohibit operations and indicate that updating is being performed) (page 4, paragraph [0050]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Fukuta with the teaching of Ogura to take the copier off-line/standby to prohibit the operation of the copier while the control program is being updated.

30. Regarding Claim 30, Fukuta teaches a method, further comprising a process terminating step of terminating said one or more processes having shifted to the off-line state (Fig. 14, S1409, 1408, save developed data and release memory) (col. 16, lines 11-21).

31. Regarding Claim 31, Fukuta fails to teach a method, wherein the data laid out by said data laying-out step is an updating program for updating at least one of the programs.

Ogura teaches a method, wherein the data laid out by said data laying-out step is an updating program for updating at least one of the programs (digital copying machine, server and the PC are connected together through a network) (page 2, paragraph [0020]) (Fig. 6, S16-S19) (CPU downloads updating data from the server) (page 3, paragraphs [0043]-[0045]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Fukuta with the teaching of Ogura to use network communication to download data from the server on the Internet.

32. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuta and Ogura as applied to claims 1 and 29 above, and further in view of Chrisop (US 7,212,306).

33. Regarding Claim 15, Fukuta and Ogura fail to teach an apparatus, wherein said process terminating unit terminates said one or more processes in a predetermined order.

Chrisop et al teaches an apparatus, wherein said process terminating unit terminates said one or more processes in a predetermined order (Fig. 4, S409a, S409b) (col. 6, lines 17-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Fukuta and Ogura with the teaching of Chrisop to prioritize the MFP functions

34. Regarding Claim 16, Fukuta and Ogura fail to teach an apparatus, wherein said order is defined according to priority assigned to each of said one or more processes.

Chrisop et al teaches an apparatus, wherein said order is defined according to priority assigned to each of said one or more processes (Fig. 4, S409a, S409b) (col. 6, lines 17-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Fukuta and Ogura with the teaching of Chrisop to prioritize the MFP functions

35. Regarding Claim 17, Fukuta and Ogura fail to teach an apparatus, wherein said order is defined according to size of memory areas allocated to the one or more respective processes.

Chrisop et al teaches an apparatus, wherein said order is defined according to size of memory areas allocated to the one or more respective processes (Fig. 4, S404) (allocation of RAM for MFP functions) (col. 5, lines 37-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Fukuta and Ogura with the teaching of Chrisop to allocate the memory according to the features of the MFP.

36. Regarding Claim 18, Fukuta and Ogura fail to teach an apparatus, wherein said order is defined according to position of memory areas allocated to the one or more respective processes.

Chrisop et al teaches an apparatus, wherein said order is defined according to position of memory areas allocated to the one or more respective processes (Fig. 4, S404) (allocation of RAM for MFP functions) (col. 5, lines 37-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Fukuta with the teaching of Chrisop to allocate the memory according to the features of the MFP.

Conclusion

37. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satwant K. Singh whose telephone number is (571) 272-7468. The examiner can normally be reached on Monday thru Friday 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Satwant Singh

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